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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of)
)
Interconnection and Resale Obligations)
Pertaining to Commercial Mobile Radio Services)

CC Docket No. 94-54

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COMMENTS OF
THE PERSONAL COMMUNICATIONS INDUSTRY ASSOCIATION

Mark J. Golden
Vice President -- Industry Affairs
Personal Communications
Industry Association
1019 19th Street, N.W.
Suite 1100
Washington, D.C. 20036
(202) 467-4770

R. Michael Senkowski
Katherine M. Holden
Jeffrey S. Linder
Stephen J. Rosen
Wiley, Rein & Fielding
1776 K Street, N.W.
Washington, D.C. 20006
(202) 429-7000

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THE PERSONAL COMMUNICATIONS INDUSTRY ASSOCIATION**

The Personal Communications Industry Association ("PCIA")¹ respectfully submits its comments regarding the Commission's Second Notice of Proposed Rulemaking in the above-captioned proceeding.² The *Notice* seeks comment regarding potential interconnection, roaming, and resale obligations of Commercial Mobile Radio Service ("CMRS") providers.

¹ PCIA and the National Association of Business and Educational Radio, Inc. ("NABER") recently completed the merger of their two organizations, and now operate under the PCIA name as a new legal entity. This new PCIA is an international trade association created to represent the interests of both the commercial and the private mobile radio service communications industries. PCIA's Federation of Councils includes: the Paging and Narrowband PCS Alliance, the Broadband PCS Alliance, the Specialized Mobile Radio Alliance, the Site Owners and Managers Association, the Association of Wireless System Integrators, the Association of Communications Technicians, and the Private System Users Alliance. In addition, as the FCC-appointed frequency coordinator for the 450-512 MHz bands in the Business Radio Service, the 800 and 900 MHz Business Pools, the 800 MHz General Category frequencies for Business Eligibles and conventional SMR systems, and the 929 MHz paging frequencies, PCIA represents and serves the interests of tens of thousands of licensees.

² FCC 95-149 (April 20, 1995) ("*Notice*").

As discussed below, PCIA agrees with the Commission that the CMRS market is highly competitive, and therefore endorses the Commission's tentative conclusion that interconnection and roaming arrangements should be left to the business judgment of CMRS providers. By encouraging competition, and allowing market forces to shape the types of services offered, the Commission will avoid freezing technology and permit service providers to respond rapidly to consumer demand. PCIA also supports in part the tentative conclusion to extend resale requirements to 2 GHz personal communications services ("PCS") and other broadband CMRS that are functionally equivalent to cellular, but believes that narrowband PCS and specialized mobile radio ("SMR") services should not be subjected to affirmative resale obligations.

I. INTRODUCTION AND SUMMARY

The *Notice* acknowledges the increasingly competitive nature of the CMRS industry and recognizes that consumer demand should compel carriers to enter into interconnection and roaming agreements. Accordingly, it tentatively concludes that the Commission should defer to market forces rather than imposing CMRS interconnection or roaming obligations. At the same time, however, the Commission proposes to mandate a CMRS resale requirement in order to encourage further competition.

PCIA agrees wholeheartedly with the Commission's conclusion that an unfettered marketplace will encourage carriers to offer interconnection and roaming services to their

customers.³ The CMRS market already is competitive, and competition will only intensify as broadband PCS, narrowband PCS, mobile satellite, and wide-area Enhanced Specialized Mobile Radio ("ESMR") operators begin to provide service. Because it is in the economic interest of CMRS providers to offer the amount and type of interconnection and roaming services desired by their customers, and because no individual carrier will enjoy market power, market forces will assure that subscriber demand for these services is satisfied.

In contrast, regulatory intervention could work great harm at this early stage in the development of the CMRS market. For example, there is considerable risk that mandated interconnection and roaming obligations could freeze technology or dictate the offering of uneconomic or unwanted services. In this regard, the Commission has correctly noted that "the informed business judgment of the CMRS providers and . . . the competitive forces of the CMRS marketplace" almost always allocate resources more efficiently than regulatory intervention.⁴ Should this expectation remain unfulfilled in individual circumstances, the Commission can take appropriate remedial measures through the complaint process.

The Commission also should preempt state regulation of interconnection and roaming. CMRS offerings are inherently mobile, and CMRS service areas often transcend state boundaries. Consequently, inconsistent state regulations would hinder the development of a fully competitive CMRS market, delay delivery of service to the public, and frustrate the

³ *Id.*, ¶ 2.

⁴ *Id.*

benefits the Commission seeks to obtain by forbearing from unnecessary regulatory intervention.

Finally, PCIA generally agrees with the Commission that a broadband CMRS resale obligation will increase competition.⁵ However, given the highly competitive nature of the market and the already existing, extensive role played by resellers in the paging and narrowband PCS market, imposition of a resale obligation should be rejected as unnecessary. Likewise, SMR operators should not be governed by mandatory resale obligations because SMR systems simply will not support meaningful resale as a technical matter.

Two limits on a broadband CMRS resale requirement, however, are warranted. First, new CMRS licensees should not be required to offer resale until experience is obtained with new network technologies and subscriber equipment. Second, as proposed by the Commission, a facilities-based provider should be permitted to deny resale by a facilities-based competitor after the competitor is fully operational. PCIA also agrees that a requirement to allow switch-based resale would be imprudent and counter-productive.

II. IN THE COMPETITIVE AND EVOLVING CMRS MARKET, AN INTERCONNECTION MANDATE WOULD BE UNWARRANTED AND DETRIMENTAL

In the *Notice*, the Commission agreed with the majority of commenters that it is premature to impose a general interconnection obligation on all CMRS providers.⁶ The

⁵ *Id.*, ¶ 3.

⁶ *Id.*, ¶¶ 28-29.

Commission pointed out that mandatory direct interconnection is inappropriate because it is impossible to predict the costs and technical nature of interconnection, CMRS providers and end users can interconnect through the LEC landline network, and market conditions do not allow CMRS providers to deny interconnection as an anticompetitive tool.⁷ Accordingly, the Commission opted to allow the CMRS industry to provide for interconnection through voluntary arrangements.

PCIA agrees with the Commission that establishment of detailed interconnection obligations would be unnecessary and counterproductive. The CMRS market is poised to explode with diverse offerings of new technologies and services. Given such dynamic conditions, it would be inadvisable for the Commission to adopt restrictive, innovation-stifling regulations based on unproven assumptions regarding the direction of technology, the desires of consumers, and the contours of the relevant product and geographic markets.⁸ There is no basis, therefore, for speculating about potential anticompetitive conduct or adopting precatory rules that are tied to specific services and service areas.

Further, in a competitive market, economic forces will allocate resources more efficiently than regulatory intervention. The Commission itself recently has recognized that the influx of a multitude of new PCS entrants will greatly stimulate competition:

⁷ *Id.*, ¶¶ 29-32.

⁸ *Id.*, ¶¶ 33-34.

PCS activity is undeniably real . . . As the recently-completed auction demonstrates, some of this [PCS] entry is being mounted by large, well-financed entities with long experience and success in the telecommunications business. That field of competitors will be strengthened further upon completion of additional spectrum auctions in the near future.⁹

This competition will encourage CMRS providers to negotiate interconnection agreements allowing them to provide services of the type demanded by their customers. Such tailored agreements will be more efficient than mandated, one-size-fits-all interconnection because they will reflect actual consumer desires.

Even without full-bore competition, the Commission could reasonably expect that CMRS providers would enter into voluntary interconnection agreements. Any provider seeking to deny interconnection would ultimately be frustrated because interconnection can always be achieved through the LEC landline network.¹⁰ In such circumstances, the provider denying interconnection would lose the revenues associated with terminating interconnected calls, creating a powerful incentive to accommodate all reasonable interconnection requests.

⁹ *Petition of the State of California To Retain Regulatory Authority Over Intrastate Cellular Service Rates*, FCC 95-195, ¶ 33 (May 19, 1995) (denying California's request to continue regulating cellular rates).

¹⁰ *See Notice*, ¶ 30. In the *Notice*, the Commission expressed concern that CMRS providers might refuse to terminate calls originated by other CMRS providers, even if those calls are passed through the LEC network. *Id.*, ¶ 34. Such a scenario is unlikely because it is not technically possible to determine the originating CMRS carrier, and even if it were possible to do so, it would not be in the terminating carrier's economic interest to refuse to terminate such calls. Not only would the terminating carrier forego revenues, but it would create severe dissatisfaction among its own subscribers.

In the unlikely event that individual providers (including, but not limited to, LEC-associated CMRS providers) would unreasonably deny interconnection,¹¹ the Commission can act through the complaint process. Any interconnection-related complaints should be considered in light of the statutory standards imposed by Sections 201 and 202 of the Communications Act and the obligation of CMRS providers, as co-carriers, to negotiate interconnection agreements in good faith.

Finally, the Commission seeks comment on whether it should preempt state-imposed interconnection obligations.¹² PCIA supports preemption of state statutes and regulations that frustrate the FCC's policy of allowing the market to shape CMRS interconnection. Because of the inherently mobile nature of CMRS, and the large, market-based service areas that often cross state boundaries, preemption is vital to the success of the Commission's well-conceived free market approach to interconnection.

III. ROAMING ARRANGEMENTS SHOULD BE LEFT TO MARKET FORCES

The *Notice* tentatively concluded that monitoring roaming developments is preferable to imposition of a roaming obligation.¹³ As with interconnection, PCIA agrees with the

¹¹ *Id.*, ¶ 43.

¹² *Id.*, ¶ 44.

¹³ *Id.*, ¶ 56. The Commission also stated that, because of the importance of roaming to mobile telephony, it will take any steps necessary to support roaming after appropriate study of the technical issues involved. *Id.*, ¶ 54. Finally, the Commission expressed both the hope that the marketplace will resolve issues such as location data base sharing, and the willingness to regulate if necessary to assure users timely access to roamer services. *Id.*, ¶¶ 55-56.

Commission that roaming arrangements are best left to the business judgment of CMRS providers. Such deference to market forces is grounded in the reasonable assumption that CMRS carriers will be willing to negotiate roaming arrangements to accommodate customer demand.¹⁴

Indeed, the willingness of the industry to negotiate roaming agreements absent Commission intervention has been demonstrated in the cellular context, where private negotiations have created seamless roaming for millions of subscribers. Because the CMRS market is much more competitive today than it was at the advent of cellular roaming, and the industry has the cellular model upon which to base its new roaming agreements, it is likely that expanded CMRS roaming arrangements can be quickly consummated. In fact, work already is being done to extend existing roaming agreements to new services.

The Commission also requested comment on the relationship between direct physical interconnection and cross-service roaming.¹⁵ If the air interfaces for two systems are compatible, there is no need for direct physical interconnection. All that is required is a means of querying each system's subscriber database. Moreover, because IS-41 signalling, data clearinghouses, and automatic user validation are in widespread use, there is less need for the direct exchange of data between CMRS providers.

¹⁴ Regulatory forbearance is particularly prudent with respect to cross-service (*e.g.*, cellular to PCS) roaming, where several technical obstacles might impede compliance with an inflexible mandate. In the absence of regulatory intervention, roaming capabilities can logically evolve between technologically similar services, and then be adapted to disparate services.

¹⁵ *Id.*, ¶ 59.

Finally, the Commission sought comment on possible proprietary and privacy concerns raised by granting providers access to subscriber databases in order to support roaming.¹⁶ PCIA believes that any proprietary concerns can be resolved in the context of carrier-to-carrier negotiations, during the course of which each carrier can protect its own interests. Furthermore, any customer who desires roaming capabilities necessarily must agree to the disclosure of information necessary to allow the roamed-to system to provide seamless, transparent services. Consequently, disclosure of the subscriber's service profile would not seem to raise significant privacy concerns, and, in any event, would not create any greater concerns than exist in the cellular context.

IV. RESALE OBLIGATIONS SHOULD BE EXTENDED ON A QUALIFIED BASIS ONLY TO CATEGORIES OF BROADBAND CMRS PROVIDERS

The *Notice* tentatively concluded that the existing cellular resale obligation should be extended to all CMRS providers, absent a showing that such an obligation would not be technically feasible or economically reasonable for a specific class of CMRS.¹⁷ In the context of broadband CMRS, PCIA agrees with the Commission that an appropriately structured resale requirement will promote competition, and is therefore in the public interest.¹⁸ PCIA, however, does not support mandatory resale of narrowband PCS, paging, and SMR services.

¹⁶ *Id.*

¹⁷ *Id.*, ¶ 83.

¹⁸ *Id.*, ¶ 84.

A. There Is No Public Interest Rationale for Imposing Affirmative Resale Obligations Upon Paging and Narrowband PCS Operators

The *Notice* specifically seeks comment on "whether resale obligations are unnecessary for paging operators and whether permitting restrictions on the resale of paging services would violate the just and reasonable standard of Section 201(b), and the non-discrimination provisions of Section 202(a)."¹⁹ As detailed below, in light of the highly competitive nature of the marketplace, the ease with which new entrants may participate in the market, and the existing level of resale in the paging industry, there is no need to alter the current regulatory environment in which paging services are provided by imposing affirmative resale obligations. Moreover, a Commission decision not to subject paging and narrowband PCS to resale requirements is fully consistent with the provisions of the Communications Act.

1. The Paging Market Already Is Robustly Competitive With Few Barriers to Entry

In undertaking action mandated by Congress in adopting Section 332 in 1993,²⁰ the Commission previously found that "the paging industry is highly competitive."²¹ As PCIA

¹⁹ *Id.*, ¶ 87.

²⁰ Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, Title VI, §§ 6002(b)(2)(A), 6002(b)(2)(B), 107 Stat. 312, 392 (1993).

²¹ In the Matter of Implementation of Sections 3(n) and 332 of the Communications Act -- Regulatory Treatment of Mobile Services, 9 FCC Rcd 1411, 1468 (1994) (Second Report and Order) ("*CMRS Second Report and Order*").

stated last year in these proceedings,²² there were approximately 2,400 paging companies operating throughout the United States on radio common carrier ("RCC") channels alone, serving 19.8 million subscribers on a highly competitive basis. By the end of 1994, the number of subscribers had grown to 24.5 million.

The industry is composed of hundreds of operators with fewer than 1,000 customers, and many more mid-sized companies with only a few thousand pagers in service. While there are some large carriers operating in the marketplace, consolidation is a relatively recent phenomenon and no individual company has more than 18 percent of the paging market. Only five companies have more than 5 percent of the market. Traditional radio common carriers ("RCCs") and private carrier paging companies ("PCPs") already compete in this marketplace. These paging services recently were joined by new services offered through 900 MHz narrowband PCS systems and will also compete with future services to be offered via low earth orbit satellites.

Further, the Commission appropriately recognized that "[c]urrent technology permits literally tens of thousands of pagers per market to be served by a single channel, and recent advances are increasing paging channel capacity dramatically. As a result, there is a huge capacity for paging, and relatively easy entry into this market, especially for private carrier paging providers."²³ Increased retail marketing of pagers, resale, and other non-direct

²² Comments of the Personal Communications Industry Association, GN Docket No. 93-252, at 8 (filed June 20, 1994).

²³ *CMRS Second Report and Order* at 1468.

forms of distribution have further intensified the competitive nature of the paging industry. Indeed, this intense competition has driven paging rates downward, and per pager monthly revenues have steadily declined.²⁴ As the Commission itself has summed up, "[t]he combination of high capacity, large numbers of service providers, ease of market entry, and ease of changing service providers results in paging being a very competitive segment of the mobile communications market."²⁵

2. Resale Already Plays an Important Role in the Paging Marketplace

As noted above, reseller participation in the paging marketplace is one factor in the highly competitive nature of this industry. Paging Network, Inc. ("Pagenet") pointed out in earlier comments in this docket that "resale is already a part of the vast distribution chain for paging services."²⁶ Resale permits facilities-based operators to expand the marketing of their services to reach a broader segment of the public without having to rely solely on their own marketing infrastructure and personnel. In addition, resale provides a ready means for licensees to establish regional offerings (should their business plans so require) while necessary FCC authorizations are obtained and new facilities are constructed.

²⁴ Monthly per pager revenues dropped 50 percent between 1987 and 1992 (from an average of \$25.80 per month in 1987 to \$12.79 in 1992).

²⁵ *CMRS Second Report and Order* at 1468.

²⁶ Comments of Paging Network, Inc., CC Docket No. 94-54, at 12 (filed Sept. 12, 1994).

The existing level of resale has been reached in the absence of any Part 22 or Part 90 rule comparable to the requirement imposed by Part 22 on cellular licensees.²⁷ As a business matter, individual paging operators have concluded that permitting (and in some cases promoting) resale of their services is a reasonable way to maximize use of their facilities and soundly operate their businesses.

Should a paging operator decide, as a business matter, not to permit resale of its services, a reseller would have plenty of alternative means for implementing its business plans.²⁸ As the Commission found over a year ago, there are at least five, and as many as nineteen, operators in each market²⁹ -- and that number of competitors will only increase with the launch of new services now being authorized and those that may be established in the future. Also, resellers can seek their own facilities-based authorizations. There thus is ample opportunity for potential service providers, specifically including resellers, to participate in the paging marketplace.

²⁷ See 47 C.F.R. § 22.901(e) (1994).

²⁸ This decision might be made, for example, in light of system capacity limitations, the operator's own marketing plans, or the particularized nature of the carrier's offerings.

²⁹ *CMRS Second Report and Order* at 1468.

3. A Commission Decision Not To Impose Affirmative Resale Obligations on Paging and Narrowband PCS Licensees Is Consistent With Communications Act Requirements

Section 201(b) of the Communications Act requires carrier charges, practices, classifications, and regulations to be "just and reasonable."³⁰ Section 202(a) prohibits carriers from engaging in any "unjust or unreasonable discrimination" in charges, practices, classifications, regulations, facilities, or services.³¹

These statutory directives can be accomplished without Commission imposition of rules specifically requiring paging operators to permit resale of their services.³² The Communications Act proscribes only those practices and classifications that are "unjust and unreasonable" and only "unjust and unreasonable" discriminations. What actions are just or unjust, or reasonable or unreasonable, necessarily must be determined by the associated circumstances.

The competitive environment of the paging marketplace, along with the opportunities for entry, should afford carriers greater flexibility under the Communications Act in their handling of resale service arrangements. This marketplace provides paging operators with

³⁰ 47 U.S.C. § 201(b).

³¹ 47 U.S.C. § 202(a).

³² The Commission itself has previously determined that Sections 201(b) and 202(a) of the Act do not absolutely require carriers always to permit resale. *See Notice, ¶ 62* (citing *Petitions for Rule Making Concerning Proposed Changes to the Commission's Cellular Resale Policies*, 6 FCC Rcd 1719, 1724 (1991) (Notice of Proposed Rule Making and Order); *Petitions for Rule Making Concerning Proposed Changes to the Commission's Cellular Resale Policies*, 7 FCC Rcd 4006, 4008 (1992) (Report and Order), *aff'd sub nom.* Cellnet Communications v. FCC, 965 F.2d 1106 (D.C. Cir. 1992).

substantial economic incentives to permit resale in many circumstances. Any denial of resale thus would likely be due to unique facts. Such cases would best be handled on an individualized basis, where the service provider can show that its actions are consistent with the Section 201(b) and 202(a) mandates.

* * * * *

In sum, paging is a highly competitive market where resale already exists. The nature of the marketplace renders unnecessary any affirmative resale obligations. Because the marketplace already is functioning so successfully, there is no practical or legal need to impose resale requirements.

B. Mandated Resale of SMR Services Is Not Technically Feasible and Is Not Required by the Public Interest

The Commission has requested comments on the technical implications of imposing mandatory resale obligations on SMR operators.³³ Past Commission decisions have reflected two rationales for applying resale obligations to carriers. First, the carrier controls a bottleneck facility, thus preventing or stifling competition and facilitating price discrimination.³⁴ Second, a new service featuring several licensees is coming on line, and

³³ Notice, ¶ 87.

³⁴ *Resale and Shared Use of Common Carrier Services and Facilities*, 60 FCC 2d 261 (1976), *recon.*, 2 FCC 2d 588 (1977), *aff'd sub nom.*, *AT&T v. FCC*, 572 F.2d 17 (2nd Cir.), *cert. denied*, 439 U.S. 875 (1978); *Cellular Communications Systems*, 86 FCC 2d 469 (1981), *modified*, 89 FCC 2d 58 (1982), *further modified*, 90 FCC 2d 571 (1982), *appeal*

the Commission wishes to minimize the advantages accruing to the first authorized licensees, while limiting the time period for such mandatory resale to encourage each licensee to complete construction.³⁵ Neither situation exists in the case of Specialized Mobile Radio. SMR operators: (1) do not have market power; (2) offer a limited interconnect service; (3) do not control a bottleneck; and (4) have customers with access to many alternatives for service.³⁶

The limited capacity of SMR systems mandates a high degree of user management by SMR operators. Assignment of "home" channels (in LTR format SMR systems) and control channels (in Motorola format systems), customer programming of group identification codes, and dedication of certain channels for interconnect traffic must be carefully managed by the system operator. Mandatory resale obligations can thwart the best efforts of small SMR businesses to manage effectively their customer bases, and unscrupulous competitors could even use resale obligations to upset the delicate user balance that each operator must maintain to operate an efficient system. While it is relatively simple and non-intrusive to add a user

dismissed sub nom., *United States v. FCC*, No. 82-1526 (D.C. Cir. Mar. 3, 1983).

³⁵ *Petitions for Rule Making Concerning Proposed Changes to the Commission's Cellular Resale Policies*, 6 FCC Rcd 1719 (1991) (Notice of Proposed Rule Making and Order).

³⁶ While the Commission may wish to view the implementation of Enhanced SMR systems differently, it is difficult to create a distinction between enhanced systems that have sufficient capacity to make resale a viable option and systems without sufficient capacity. Further, the prospect of mandating that an ESMR operator be permitted to resell on an analog SMR system of an unaffiliated carrier raises the potential that the ESMR operator could "dump" unwanted traffic on the analog SMR system, causing the analog system to become overly congested and enabling the ESMR operator to convince more desirable customers to leave the analog system for the ESMR system.

to a cellular system, adding customers to an SMR system must be more carefully planned to prevent congestion on the system.

There are a number of technical restrictions with most SMR systems that simply make it impossible to provide for these capabilities. A review of the technical differences between traditional SMR systems and cellular or PCS systems illustrates the difficulty of mandatory resale. With cellular and PCS service, all individual units are activated, identified, and billed based on a unique identifying number (such as a cellular electronic serial number) built into each unit as it is manufactured. This arrangement makes it possible to track and bill for usage of each unit. Since the unique identifying number resides in each individual unit, there is virtually infinite system capacity, limited only by the number of cell transmitters and available phone numbers.³⁷ In addition, it should be noted that cellular phones are preprogrammed with all frequencies and are essentially compatible with every system in the country.

In contrast, SMR radios as supplied by the manufacturer possess no unique ESN and instead must be specifically programmed with frequencies and all other technical parameters for each and every system on which they will operate. Before any radio can be programmed and/or activated, a specific ID code must be assigned by the SMR system operator. If multiple SMR systems are involved, it is very likely that completely different ID codes and

³⁷ Although cellular systems are now permitted to offer all-call dispatch service, such offerings do not presently exist. Thus, in cellular systems there is no sharing of unit identifications by multiple units.

frequency information will be involved for each system. This protocol does not easily lend itself to reselling applications.

Most formats (particularly the LTR format) have a finite number of unit ID codes. These IDs reside in the logic panels at each transmitter site. For example, the LTR protocol will only support 250 separate codes per each RF channel. For a ten channel system, this would yield 2500 unique codes. This limited number of codes cannot support resellers without causing the SMR system operator some severe logistical problems. Where consensual reselling does exist, it involves the intimate involvement of the operator in ensuring that the unit placed in operation does not have the potential to crash the system.

The vast majority of SMR users are fleet dispatch customers. The typical dispatch customer has all mobile units operating on the same ID codes (not separate or unique), paying a flat rate per unit regardless of airtime usage. Because it is not currently possible to track individual units (other than when the SMR operator sells, programs, and installs each unit), there is a very significant potential for fraud if mandatory resale is permitted.

In fact, such fraud already exists on many SMR systems, where pirate radio shops program additional units for a customer already on the system and never inform the system operator. The result is a decline in service quality for all customers on the system, and significant lost revenue for operators that bill on a per unit basis.

If the Commission mandates resale, an SMR system operator would need to divulge ID code information to a reseller. The reseller could then easily add dispatch units to the

system without the knowledge of the SMR operator. Because most SMR dispatch customers are billed on a flat rate basis, there is no mechanism to detect added "pirate" units.

It should also be noted that many SMR interconnect units cannot be easily interconnected to another carrier. In particular, DID service with individual numbers for all users is seldom used. This requires the landline caller to call one site phone number (shared by all users) followed by the overdial of five or more extra digits to get through to a mobile unit. Generally, SMR operators do not encourage interconnect calls because of the limited capacity of many systems. Interconnect is generally provided as a convenience, so that users will not need multiple radios.³⁸ Clearly, there is no comparison between this type of interconnect and cellular or PCS.

³⁸ Certainly, there are SMR systems designed to serve primarily interconnect units. However, such systems are clearly the minority of operating SMR systems today.

C. Broadband CMRS Providers Should Be Required To Permit Resale in Certain Circumstances

PCIA generally supports a broadband CMRS resale requirement.³⁹ Such a policy is likely to increase competition without raising undue concerns about economic and technical feasibility (other than during the initial service period, as noted below). Moreover, the regulatory parity principle embodied in Section 332 of the Act requires that, if cellular providers are subject to resale obligations, so too must other providers of substantially similar broadband CMRS. At the same time, however, PCIA urges the Commission to qualify the resale obligation in two important respects, both of which are implicitly or explicitly recognized in the *Notice*.

First, the Commission appropriately acknowledges that resale may properly be denied where it is technically infeasible.⁴⁰ This will be the case for new PCS licensees for an initial period during which network security and stability will be essential. There are a multitude of competing PCS air interface standards (*e.g.*, GSM, CDMA), on which

³⁹ The Commission inquires whether the ability to resell other CMRS services will allow new facilities-based carriers to enter the CMRS market in advance of facilities-based competition, build a customer base, and generally counteract the headstart that cellular carriers now possess. *Notice*, ¶ 88. With the exceptions noted above, PCIA believes the resale obligation will in fact give new CMRS carriers the ability to make their own business decisions as to whether to initiate services as a reseller before building their own networks.

The Commission also asks whether number transferability requirements should be a part of the CMRS resale policy. *Id.*, ¶ 94. PCIA urges the Commission to defer this issue to the upcoming number portability proceeding.

⁴⁰ *Id.*, ¶ 83.

experience and data must be obtained. Moreover, unlike the cellular context, there is no existing, type-accepted subscriber equipment. Consequently, new PCS licensees have a legitimate need to monitor demand for their services and retain complete control over the use of their facilities while their networks and subscriber equipment are deployed, and accordingly to restrict resale for a limited period.

PCIA thus recommends that the Commission allow new PCS licensees a period of one year after construction in which to launch their operations before facing resale obligations. A provider could, of course, allow resale on a non-discriminatory basis during that initial year of operation if it felt there were no risk in doing so. Indeed, given the tremendous new influx of CMRS capacity, new PCS providers will have every economic incentive to generate demand through resale as soon as the network is stable. The requested modification is therefore a reasonable precaution.

Second, PCIA concurs with the Commission's tentative conclusion that, as in the cellular context, a fully operational facilities-based carrier should not have mandatory access to its competitors' capacity for the purposes of resale.⁴¹ Although a resale requirement initially encourages competition and consumer choice, it ultimately has the opposite effect. That is, by discouraging the construction of CMRS infrastructure, mandatory facilities-based resale requirements eventually could decrease CMRS capacity below consumer demand.

Finally, PCIA concurs with the Commission's tentative conclusion that the reseller switch proposal espoused by NCRA and Comtech/CSI should not be imposed upon CMRS

⁴¹ *Id.*, ¶ 90.

providers at this time.⁴² As the *Notice* reflects, mandating such switch-based resale at this stage in the development of the CMRS market would not be in the public interest for several reasons.⁴³ As an initial matter, switch-based resale will not appreciably increase CMRS competition because a multitude of new CMRS competitors are entering the market, and in any event, the Commission is likely to mandate non-switch-based resale. Second, as explained above, certain broadband CMRS technologies will be start-up operations utilizing new technologies and will require a period of time to stabilize their operations under real market conditions. Under these circumstances, switch-based resale could produce severe reliability and service quality concerns. Third, as the Commission suggested, switch-based resale may cause facilities-based carriers needlessly to expend resources unbundling their networks,⁴⁴ instead of devoting those resources to establishing and expanding coverage and capabilities. Finally, the Commission has correctly pointed out that the cost of administering the rules governing switch-based resale will be significant.⁴⁵

⁴² *Id.*, ¶¶ 78, 95. Under this policy, CMRS providers would be required to allow resellers to install their own switching equipment between of the MTSO and the facilities of a local exchange carrier or interexchange carrier.

⁴³ *Id.*, ¶ 96.

⁴⁴ *Id.*

⁴⁵ *Id.*, ¶ 96.

V. CONCLUSION

The CMRS industry is poised to expand dramatically, giving rise to a plethora of new services, technologies, and competitors. PCIA therefore supports the Commission's tentative decision to leave interconnection and roaming arrangements to the informed business judgment of CMRS providers responding to market forces. PCIA also generally supports the Commission's tentative decision to impose a resale requirement on broadband CMRS providers, but believes that resale should not be mandated for narrowband CMRS and SMR operations. The resale obligation must be limited in two important respects, however. First, new PCS entrants should be allowed to deny resale for an initial period in order to assure the reliability of network technology and subscriber equipment that has not been tested in the real world. Second, CMRS providers should be permitted to deny resale to fully operational,